

REMARKS/ARGUMENTS

Applicant acknowledges receipt of the Examiner's communication dated April 3, 2007.

I. Specification

The Examiner advised that the specification had not been checked to the extent necessary to determine the presence of minor errors. Applicant has identified at two errors in the specification, which have been addressed on page 2 herein.

II. Claim Objections

The Examiner objected to several of the claims on the basis of informalities. The objections have been considered and have been addressed as provided in the listing of claims beginning on page 3 herein.

III. Claim Rejections – 35 USC § 103

The Examiner has rejected claims 1-21 as being unpatentable over Shmulewitz et al. in view of Clay et al. Applicant disagrees for the following reasons.

Independent claim 1 of the present application, as amended, recites a method for diagnosing the possibility of disease in a body part, the method including, *inter alia*, using a model of the body part to obtain a baseline electrical property associated with each of the plurality of finite elements for each of a plurality of current injections obtained with an electrode array. The baseline electrical property values are obtained for each of the current injections as a preparatory step and stored in a baseline body parts database.

Shmulewitz et al. is directed at continuously measuring cardiac output using bioelectrical impedance analysis. This reference uses weights associated with *a priori* knowledge of the relative distribution of blood flow through, for example, the aorta.

It should be understood that the distribution does not reflect the underlying physiology, as is the case with the present invention.

Furthermore, the present invention uses the baseline electrical property associated with each of the current injections, and which is used to compute the diagnostic. In contrast, Shmulewitz et al. discloses an averaging of repeated bioelectrical impedance analysis (column 7, lines 46-63) that cannot reasonably be construed as being the same as the baseline electrical property of the present invention. Shmulewitz et al. does not disclose or suggest using a model of a body part to obtain a baseline electrical property associated with each of a plurality of finite elements for each of a plurality of current injections obtained with an electrode array.


Clay et al. is directed at impedance tomography used to detect and localize brain impedance changes associated with stroke. Applicant submits that Clay et al. also fails to disclose or suggest a method that includes using a model of the body part to obtain a baseline electrical property associated with each of the plurality of finite elements for each of a plurality of current injections obtained with an electrode array.

Lacking at least this claimed element, it cannot be said the cited references Shmulewitz et al. and Clay et al., if considered either individually or in combination, render claim 1 as being unpatentable. The remaining claims all depend from claim 1 and all are therefore patentable for at least these reasons.

Applicant points out to the Examiner that despite the intense commercial interest and academic research in the field of disease diagnosis, only in the present application has a disease diagnostic method including impedance measurements and finite element analysis been fully realized. Applicant submits that the present invention as disclosed and claimed is both novel and non-obvious, whether in view of Shmulewitz et al., Clay et al., and/or the knowledge of one having ordinary skill in the art at the time the present invention was made. Had the present invention been obvious, then such a diagnostic method would have been previously invented and disclosed.

In light of the above arguments, the Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Should the Examiner have any further questions, comments, or concerns related to this case and for which the Examiner deems a telephone call may expedite prosecution, the Examiner is invited to contact the undersigned at (416) 957-1697.

Respectfully submitted,
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